

In the claims.

1. (Currently Amended) Frequency modulation switching apparatus for rapidly increasing and decreasing the frequency within radio -frequency pulses of radio wave pulse trains transmitted by an antenna having series inductance and capacitance, the apparatus having, in combination, a solid-state four-terminal rectifier bridge circuit with opposing pairs of bridge terminals connected with one pair of opposing terminals shunting said inductance and said capacitance; and series -connected ~~staturable~~ saturable and linear inductors and SCR switch connected between the other pair of opposing terminals of the bridge circuit, whereby the high-speed triggering of the SCR on effects corresponding high-speed frequency increasing or decreasing of the frequency within the radio-frequency pulse to provide the desired frequency modulation therein.
2. (Original) The apparatus of claim 1 wherein the radio-wave pulse trains are Loran-C navigation pulses.
3. (Original) The apparatus of claim 2 wherein the bridge rectifiers are symmetrically disposed in each of the arms of the bridge.
4. (Original) The apparatus of claim 2 wherein the triggering of the SCR is effected in accordance with digital bits comprising communication to be added to the Loran-C navigation transmissions and without impacting the navigation utilization thereof.
5. (Currently Amended) A method of providing frequency modulation within radio-frequency pulses transmitted by an antenna having series inductance and capacitance, that comprises, connecting a solid -state four-terminal rectifier bridge having two pairs of opposing bridge terminals with one pair of said terminals in shunt with said antenna inductance and capacitance; interposing series-connected ~~staturable~~ saturable and linear inductors and an SCR switch between the other pair of opposing bridge circuit terminals; and high- speed triggering the SCR on to affect corresponding high- speed frequency increasing or decreasing of the frequency within the radio-frequency pulse to provide the desired frequency modulation therein.

6. (Original) The method of claim 5 wherein the radio-wave pulses are Loran-C navigation pulses.

7. (Original) The method of claim 6 wherein the SCR is triggered in accordance with digital bits comprising communication to be added to the Loran-C navigation transmission without impacting the navigation utilization thereof.